

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~Data~~ A data representation apparatus
for representing data by means of an audio signal, ~~said data~~
~~representation apparatus~~ comprising:
— an audio processing unit ~~arranged to deliver~~ for delivering
5 the audio signal with a characteristic dependent upon a
~~positionless data variable capable of~~ signal having at least a first
value and a second value, ~~;~~ and
~~characterized in that~~
— ~~the data representation apparatus comprises a mapping~~
10 ~~unit, arranged to map for mapping~~ the first value of the data
~~variable signal~~ to a first position in three-dimensional space, and
the second value of the data ~~variable signal~~ to a second position
in three-dimensional space, and,
~~wherein the audio processing unit is arranged to~~
15 ~~change~~ changes the characteristic of the audio signal, resulting in
the audio signal appearing, to a user listening to the audio
signal, to originate from the first position ~~for when the data~~
~~variable having signal has the first value, respectively and from~~
the second position ~~for when the data variable having signal has~~
20 the second value, ~~to a user listening to the audio signal.~~

2. (Currently Amended) ~~Data~~ The data representation apparatus
as claimed in claim 1, wherein the audio processing unit comprises

a filter for applying a head related transfer functions to an input audio signal to obtain the output audio signal appearing to originate from the first position ~~respectively and~~ the second position.

3. (Currently Amended) ~~Data-The data representation apparatus as claimed in claim 1, comprising wherein said data representation apparatus further comprises a data variable signal distributor, capable of for~~ delivering the data variable signal, derivable from a measurement from a measurement device, to the audio processing unit.

4. (Currently Amended) ~~Data-The data representation apparatus as claimed in claim 1, wherein the mapping unit is arranged to map~~ maps a collection of nominal values of the data variable signal to predetermined regions of three-dimensional space.

5. (Currently Amended) ~~Data-The data representation apparatus as claimed in claim 1, wherein the mapping unit is arranged to map~~ maps a collection of numerical values of the data variable signal to positions on a curvilinear locus in three-dimensional space.

6. (Currently Amended) ~~Data-The data representation apparatus as claimed in claim 1, wherein said data representation apparatus further comprises specification means are comprised, arranged to~~

~~allow a specification of for specifying~~ a preferred mapping for the
5 mapping unit.

7. (Currently Amended) ~~Data-~~The data representation apparatus
as claimed in claim 1, wherein said data representation apparatus
further comprises selection means ~~are present, arranged to allow for~~
enabling presentation of a first set of data ~~variable-signal~~ values
5 by a first type of the audio signal and a second set of data
~~variable-signal~~ values by a second type of the audio signal.

8. (Currently Amended) A system for representing data by means
of an audio signal, said system comprising:

-- an audio source ~~arranged to deliver for supplying~~ an input
audio signal;

5 -- a source of a data ~~variable-capable of-signal~~ having at
least a first value and a second value;

-- a sound production device; and

-- a data representation apparatus for representing data by
means of the audio signal,

10 wherein the data representation apparatus comprising comprises:

.....an audio processing unit arranged to deliver for providing
the audio signal to the sound production device with a

characteristic dependent on the value of the data variable-signal,
and

15 ~~characterized in that~~

~~the data representation apparatus further comprises a mapping unit, arranged to map by means of a~~ for mapping the first value of the data ~~variable~~ signal to a first position in three-dimensional space, and the second value of the data ~~variable~~ signal to a second position in three-dimensional space; ~~and,~~
~~wherein the audio processing unit is arranged to~~ change ~~changes~~ the characteristic of the audio signal, resulting in the audio signal appearing, to a user listening to the audio signal, to originate from the first position ~~for when the data variable~~ having signal has the first value ~~respectively,~~ and from the second position ~~for when the data variable~~ having signal has the second value, ~~to a user listening to the audio signal.~~

9. (Currently Amended) A method of representing data by means of an audio signal, said method comprising the steps of:

~~an audio processing step and delivering the audio signal with a characteristic dependent on a data variable, capable of~~ signal having at least a first value and a second value; ~~and characterized in that~~

~~a mapping is effected mapping the first value of the data variable~~ signal to a first position in three-dimensional space, and the second value of the data ~~variable~~ signal to a second position in three-dimensional space; ~~and,~~
~~wherein the audio processing and delivering step~~ changes ~~includes changing~~ the characteristic of the audio signal, resulting in the audio signal appearing, to a user listening to the audio

15 | ~~signal, to originate from the first position for when the data~~
| ~~variable havingsignal has the first value respectively, and from~~
| ~~the second position for when the data variable havingsignal has the~~
| ~~second value, to a user listening to the audio signal.~~

10. (Currently Amended) A ~~computer-readable medium having~~
~~stored thereon a~~ computer program for execution by a processor,
enabling the processor to execute the method of claim 9.

11. (Cancelled).